

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent David Howard and/or
Application of: unknown inventors and/or

Assignee: Unitherm Food Systems, Inc.

Title: unknown

Application Serial No.: unknown

Filing date: unknown

Examiner: unknown

Art Unit: unknown

**PETITION FOR ACCESS TO AN UNPUBLISHED APPLICATION
PURSUANT TO 37 C.F.R. §1.14(j)**

Mail Stop Petition
Attn: Mr. Mike Lewis
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RECEIVED

NOV 07 2003

OFFICE OF PETITIONS

Sir:

This is a petition under 37 CFR §1.14 (j) for access to any and all unpublished patent application or applications (the "Unitherm application") relating to pasteurization that are assigned to Unitherm Food Systems, Inc. of Bristow, Oklahoma ("Unitherm") and/or that name David Howard of Tulsa, Oklahoma ("Mr. Howard") as inventor or co-inventor.. This petition is being filed on behalf of Alkar-RapidPak, Inc. of Lodi, Wisconsin ("Alkar") through its undersigned attorney.

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130.00 0P

Pursuant to 37 CFR §1.248, this petition has been served upon Unitherm Food Systems, Inc. through transmittal by first class mail on November 7, 2003 to its attorney, Dennis D. Brown of the law firm of Fellers, Snider, Blankenship, Bailey, & Tippens, P.C. of Tulsa, Oklahoma. This petition has also been served upon Mr. Howard through transmittal by first class mail on November 7, 2003 to his usual place of business at the offices of Unitherm Food Systems, Inc. in Bristow, Oklahoma. This petition is also being filed in duplicate, so that the duplicate may be sent by the Office to the applicant and/or assignee in the event that the aforementioned service is unsuccessful.

In accordance with 37 CFR §1.14(j), this petition includes:

- (1) payment of the fee set forth in 37 CFR §1.17(h); and
- (2) a showing of that access to the application by petitioner is necessary because of special circumstances that warrant petitioner being granted access to all or part of the application.

The undersigned respectfully requests that the Office acknowledge receipt of this petition by returning the self-addressed postcard which the undersigned has enclosed for this purpose.

FEES

This petition is accompanied by a check in the amount of \$130. in payment of the fee set forth in 37 CFR §1.17(h). The Commissioner is hereby authorized to charge any maintenance fee, surcharge, or petition deficiency, or to credit any overpayment, to Deposit Account No. 50-2350. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2350. A duplicate copy of this authorization is attached.

APPLICABLE LAW

The statutory basis for this petition is 35 U.S.C. §122(a), which states that "... applications for patents shall be kept in confidence by the Patent and Trademark Office and no information concerning the same given without authority of the applicant or owner unless necessary to carry out the provisions of an Act of Congress or in such special circumstances as may be determined by the Director" (emphasis added).

The administrative regulation governing this petition is 37 C.F.R. §1.14(j), which states that "The Office, either *sua sponte* or on petition, may also provide access or copies of all or part of an application ... if warranted by other special circumstances ..." and that "any petition by a member of the public seeking access to, or copies of, all or part of any pending or abandoned application preserved in confidence ... must include ... a showing that ... special circumstances exist which warrant petitioner being granted access to all or part of the application." See M.P.E.P. §103.

The most recent decision cited by the M.P.E.P., *In re Crossman*, 187 U.S.P.Q. 367 (PTO Solicitor 1975), denied a petition for access to a pending patent application under the facts of that case. That decision did, however, confirm that "use of an application for patent to interfere with the business of others may be considered 'such special circumstances'" (that would warrant access to a pending patent application). In that case, the patent applicant had sent "warning letters" in which the applicant stated that until the patents issue, anyone would be free to manufacture, use, or sell (the patented invention) and that the applicant had "no interest in interfering with any such transactions," but that the applicant would take prompt action to stop such sales when its patents issue.

The next decision cited by the M.P.E.P., *In re Application for Trimless Cabinets*, 128 U.S.P.Q. 95 (Comm'r Pat. 1960), states that "the fact that one notifies specific individuals or concerns that there is a pending patent application which may cover the product which that party makes, uses, or sells, is not considered to be such interference as to warrant waiver of the secrecy guaranteed by the statute ...," and that the "letter

which petitioner states was received by him is no more than a notice of such pending application and of the owner's intent to enforce its rights, when and if a patent is granted." The decision notes that "(t)here is nothing in that letter which would indicate that petitioner's customers have been threatened." Although the petition for access was denied, it was "denied without prejudice to its renewal if accompanied by proof that petitioner or petitioner's customers are being threatened and that petitioner's business has suffered because of those threats."

The third and final decision cited by the M.P.E.P., *Ex parte Bonnie-B Co.*, 313 O.G. 453 (Comm'r Pat. 1922), states that:

"where a competitor is marketing a device for which an inventor has an application pending, it is not considered improper for the inventor to notify the competitor that he, the inventor, has an application pending for said invention, when such notice is merely intended to put the competitor on notice as to making substantial investments and expenditure in the marketing of the device. The inventor, however, should not in any way interfere with the business of the competitor in this matter. To do so will justify this Office in giving the competitor access to the pending applications upon which the notice is based, or at least in giving him photostat copies of the drawings." (emphasis added).

Although the petition for access was denied, it was denied "without prejudice to its renewal in case the applicant makes further demands that petitioner or his customers stop marketing the device."

**REQUIRED SHOWING OF SPECIAL CIRCUMSTANCES THAT WARRANT PETITIONER
BEING GRANTED ACCESS TO ALL OF PART OF THE APPLICATION**

As required by the provisions of 37 CFR 1.14(j), and as discussed in §103 of the M.P.E.P., provided below is a chronology and relevant facts , a showing why access to the application is desired by the petitioner, and a showing why the petitioner believes it is entitled to access. Copies of all the documents referred to in this petition (except the aforementioned decisions cited in §103 of the M.P.E.P.) are provided herewith as appendices.

**CHRONOLOGY OF UNITHERM'S INTERFERENCE WITH
ALKAR'S BUSINESS WITH-FOSTER FARMS**

On May 12, 2003, Mr. David Howard, President of Unitherm Food Systems, Inc. and who we believe to be a named inventor on the Unitherm application(s), wrote an unsolicited letter to Mr. Tim McConnell at Foster Farms, a customer of Alkar following a competition between Alkar and Unitherm. Mr. Howard's letter, attached as Appendix A, includes an attached letter dated May 12, 2003 from Unitherm's attorney, Atty. Dennis D. Brown, which purports to describe the claims of the Unitherm applications (the "purported Unitherm claims"). Mr. Howard's letter asserts that Unitherm "has been pioneering post-pasteurization," states an interest in "licensing that technology," declares that "whilst the patents are still pending there is an allowance on some of the claims," and finally asserts that they are also the "inventors of the inline browning and smoking process."

On May 21, 2003 or thereabouts, Foster Farms forwarded Mr. Howard's letter to Alkar, in light of the obvious nexus between Mr. Howard's letter, the implication of patent infringement in Mr. Howard's letter, and the earlier competition between Alkar and Unitherm for business at Foster Farms in which Alkar prevailed.

On May 23, 2003, Mr. Robert Hanson, Alkar's Vice President of Research & Technology, wrote to Foster Farms to address the patent issues raised by Mr. Howard's assertion of licensable patent rights. Mr. Hanson's letter, attached as Appendix B, noted that the simple process which Mr. Howard claims to have invented (browning, bagging, post-pasteurization, and cooling of pre-cooked food products) has been practiced at least as early as 1999. Subsequent research, contained in the Protest submitted herewith, has shown that this simple process which Mr. Howard claims to have invented lacks novelty and is obvious in light of prior art going back much earlier than 1999.

Mr. Hanson's May 23 letter to Foster Farms also noted that Alkar provides indemnification against patent infringement in its standard contracts. However, as would ordinarily be the case, Alkar does not provide indemnification against patent infringement by a combination of Alkar equipment with other equipment. This is important because, even hypothetically assuming that the purported Unitherm claims would be patentable, those claims could not be infringed by Alkar equipment, since Alkar equipment does not provide every step of the Unitherm purported claims. Only the combination of Alkar equipment with other equipment, and not Alkar equipment by itself, could infringe the purported Unitherm claims.

On June 12, 2003, Mr. Randall Boyce, Vice President and General Counsel of Foster Farms, sent a response, attached as Appendix C, to Mr. Howard's letter of May 12, 2003. Mr. Boyce's letter expresses Foster Farm's respect for intellectual property, and asks for more information regarding the patent rights which Unitherm asserts are available for license. Upon information and belief, petitioner states that Unitherm has not provided any further information regarding their asserted patent rights to Foster Farms.

CHRONOLOGY OF UNITHERM'S INTERFERENCE WITH
ALKAR'S BUSINESS WITH-CAROLINA TURKEYS

On May 13, 2003, Mr. Howard wrote to Mr. Jay Jandrain, at Carolina Turkeys, a customer of Alkar and not of Unitherm following a competition between Alkar and Unitherm. Mr. Howard's letter, attached as Appendix D, includes a copy of the above-referenced May 12, 2003 letter from Unitherm's attorney, Atty. Dennis D. Brown, which purports to describe the claims of the Unitherm applications. In contrast to Mr. Howard's May 12, 2003 letter to Foster Farms which asserted allowed claims, Mr. Howard's letter to Carolina Turkeys states merely that "whilst the patents are pending, we are very pleased with the results of the patent office examination thus far."

On May 21, 2003 or thereabouts, Carolina Turkeys contacted Alkar regarding Mr. Howard's letter, in light of the obvious nexus between Mr. Howard's letter, the implication of patent infringement in that letter, and the earlier competition between Alkar and Unitherm for business at Carolina Turkeys in which Alkar prevailed.

On May 22, 2003, Mr. Robert Hanson, Alkar's Vice President of Research & Technology, wrote to Carolina Turkeys to address the patent issues raised by Mr. Howard's assertion of licensable patent rights. Like Mr. Hanson's May 23, 2003 letter to Foster Farms, Mr. Hanson's letter to Carolina Turkeys, attached as Appendix E, noted that the process Mr. Howard claims to have invented (pre-browning, bagging, post-pasteurization, and cooling of pre-cooked food products) had been practiced at least as early as 1999, and noted that Alkar provides indemnification against patent infringement in its standard contracts.

On June 11, 2003, Mr. Howard wrote to Mr. Mike Bliss at Carolina Turkeys. Mr. Howard's letter, attached as Appendix F, states that "Carolina Turkeys is proceeding to pasteurize product in a format that uses the 'browning oven' as the pre-pasteurizer. Thus eliminating the existing nitrogen tunnel and going straight to the bagger followed by the in-bag-pasteurizer process. As I have already indicated, this will conflict with the patent pending applications that we have. You suggested others may be doing the same. This

may be so.” (emphasis added). Mr. Bliss made handwritten notes on Mr. Howard’s letter, indicating that he believed Mr. Howard had mischaracterized Mr. Bliss’s statements.

On June 11, 2003, Mr. Howard also wrote to Mr. Dan Blackshear, President of Carolina Turkeys. Mr. Howard’s letter, attached as Appendix G, implies that Carolina Turkeys will infringe Unitherm’s pending patent applications.

On July 16, 2003, Carolina Turkeys’ attorney, Atty. J. Troy Smith, wrote to petitioner’s attorney to express concern regarding the patent issues raised by Mr. Howard’s letter. Atty. Smith’s letter, attached as Appendix H, states Carolina Turkeys’ position that “the Unitherm claims properly should be investigated and resolved by ALKAR,” and that “given the schedule for construction and installation of the subject equipment, it is imperative that ALKAR undertake to investigate the claims of Unitherm as they impact ALKAR ...” On July 25, 2003 petitioner’s attorney sent a response, attached as Appendix I, to Atty. Smith’s July 16, 2003 letter. That response included exemplary prior art that is believed to anticipate or render obvious the purported Unitherm claims.

On August 1, 2003, Atty. Donalt Eglinton (colleague of Atty. Smith) wrote to petitioner’s attorney. Atty. Eglinton’s letter, attached as Appendix J, expressed continued concern regarding the issues raised by Unitherm, and enclosed for “review and consideration the indemnification provisions which our client, Carolina Turkeys, proposes to include as a condition to proceeding with the equipment and process now being contemplated by your client, ALKAR-Rapidpak, Inc.” (emphasis added). Carolina Turkey’s proposed indemnification provisions required indemnification for “alleged infringement of any United States patent ... relating in any way to any products ... manufactured or furnished by Seller, or to any device, processes, systems or methods into which such products are designed, positioned, incorporated, included, specified, or placed by or on the basis of any action of Seller ...,” unusually broad indemnification indeed.

On August 21, 2003, petitioner’s attorney sent a response, attached as Appendix K, to Atty. Eglinton’s August 1, 2003 letter.

SHOWING WHY ACCESS TO THE APPLICATION IS DESIRED BY PETITIONER

The basic premise of the patent system in the United States is that patentees will disclose their inventions in exchange for exclusive rights for a limited period. Unitherm has been asserting patent rights without making any disclosure, and it is this which petitioner believes is fundamentally unfair. Alkar desires access to the Unitherm application(s) in order to respond effectively to Unitherm's assertion of patent rights and thereby compete fairly.

First, the petitioner desires access to the Unitherm application(s) in order to determine whether Unitherm has made false or misleading statements regarding the claims of the Unitherm applications.

Second, the petitioner desires access to the Unitherm application(s) in order to determine the filing date and the scope of the claims of those application(s), in order to provide material prior art to the Office, to supplement the Protest under 37 C.F.R. §1.291(a) against the Unitherm application(s) being filed herewith.

Third, the petitioner desires access to the Unitherm application(s) in order to respond to the concerns of current and future customers who have received, or will receive, letters from Unitherm asserting patent rights.

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SHOWING WHY PETITIONER BELIEVES IT IS ENTITLED
TO ACCESS TO THE APPLICATION

In view of the above, it can be seen that petitioner is entitled to access to Unitherm's pending applications because Unitherm has in fact interfered with petitioner's business with at least two customers, Foster Farms and Carolina Turkeys, as shown by the foregoing discussion and the Appendices attached hereto.

Petitioner has in fact been damaged by Unitherm's interference with petitioner's business. Besides the damage to petitioner caused by Unitherm's interference with petitioner's business, petitioner has also incurred very substantial direct expenses for legal services, including counseling, correspondence with Unitherm, Foster Farms, and Carolina Turkeys, as well as preparation of this petition and the Protest being submitted herewith, in order to respond to Unitherm's interference and assertion of patent rights. Finally, in order to deal with Unitherm's unfair assertion of patent rights, and in particular to keep the Carolina Turkeys project on track, petitioner has been forced to expend substantial travel expenses and other resources, such as employee and management time and attention.

In light of the interference with petitioner's business and the substantial damage caused to petitioner by Unitherm's unfair assertion of patent rights, petitioner believes it is entitled to access to Unitherm's application in order to mitigate any further damage caused by Unitherm's unfair assertion of patent rights.

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CONCLUSIONS

In view of the foregoing showing, it is earnestly believed that special circumstances exist which warrant the undersigned petitioner being granted access to all or part of the Unitherm patent application(s). Therefore, it is respectfully requested that petitioner be granted access to all or part of each Unitherm patent application or applications, including but not limited to the complete prosecution history, filing date, information as to whether any claims have in fact been allowed, and the subject matter of any allowed claims. If for any reason it is believed that a telephone conference would expedite the handling of this petition, the Commissioner is respectfully requested to call the undersigned by telephone at the below-listed number.

Respectfully submitted,



By _____

Date November 7, 2003

FOLEY & LARDNER
Post Office Box 1497
150 East Gilman Street
Madison, Wisconsin 53701-1497
Telephone: (608) 258-4268
Facsimile: (608) 258-4258

Rick L. Abegglen
Attorney for ALKAR-RapidPak, Inc.
Registration No. 47,371

UNITHERM FOOD SYSTEMS, INC.

602 Industrial Road
Bristow, Oklahoma 74010

Tel: 918-387-0197

Fax: 918-387-5440

E-mail: unitherm@unithermfoodsystems.com

To: Rick Abeglen
Fri: Bob Hanson
fax: 608-258-4258



COOK / CHILL SPECIALISTS

May 12, 2003

*All contents are Confidential
and considered Trade Secrets of Unitherm*

Tim McConnell
FOSTER FARMS

Via Fax # 209-668-5978

Dear Tim,

As you are aware Unitherm has been pioneering post-pasteurization. We are now interested in licensing that technology. Whilst the patents are still pending there is an allowance on some of the claims. We are particularly interested in discussing the combination approach of pre-heating followed by in bag pasteurization. As the inventors of the inline browning and smoking process we did consider this technology within the scope of our pre-pasteurization approach.

We are looking to meet with interested parties to discuss licensing the technology at 1¢ per lb.

Please let me know if you would like to discuss this further.

Yours sincerely,

David Howard
President

DH/ka

Visit our web site at www.unithermfoodsystems.com

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RAPIDPAK INC

FAX NO. 608524039

P. 03

05/21/2003 00:00 2003

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FOSTER FARMS R D

PAGE 03

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May-12-03 04:20pm From:FBEMAT

UNITHERM

0185830000

T-272 P.003/003 F-573

Mr. David Howard
UNITHERM FOOD SYSTEMS, INC.
May 12, 2003
Page 2

In addition, please recall that your pending patent applications also include numerous other claims. Moreover, the overall scope of the claims currently pending in your applications goes far beyond the specific pre and post-pasteurization process described above.

Yours very truly,

FELLERS, SNIDER, BLANKENSHIP,
BAILEY & TIPPENS



Dennis D. Brown

DDB:caw
100001

cc: John J

May 23, 2003

Tim McConnell
Foster Farms
1000 Davis St
Livingston, CA 95334

- mailed on 5-23-03
by reg mail

Dear Tim,

Regarding patent issues on our equipment, Alkar-RapidPak stands behind our products -- including indemnification against patent infringement. Enclosed are the patent indemnification terms that we include in all of our standard contracts.

Regarding the use of an Alkar-RapidPak surface pasteurizer as part of a process including pre-browning, bagging, post-pasteurization, and cooling of pre-cooked food products, we are aware of industry installations in operation since at least as early as 1999 that follow that process.

Please keep me informed of any further support that I can give you on this issue.

Best regards,



Robert Hanson
Vice President of Research & Technology

cc: Tim Moskal; Alkar-RapidPak
Mike Maki; Alkar-RapidPak

APPENDIX C

Foster Farms
P.O. Box 457
1000 Davis Street
Livingston, California 95334
Telephone 209.394.7901
Fax # 209.394.6362



June 12, 2003

Mr. David Howard
President
Unitherm Food Systems, Inc.
502 Industrial Road
Bristow, Oklahoma 74010-9763

Cur
Tim
John I
Dave S
Daryl

B57-H.

Re: May 12, 2003 Letter to Tim McConnell

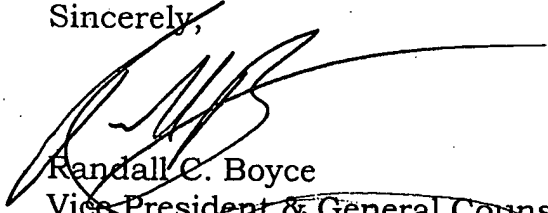
Dear Mr. Howard:

Tim McConnell forwarded your May 12 letter to me. It sounds like congratulations may be in order on your post-pasteurization patent applications. As you probably know, Foster Farms also seeks to protect its technology by filing patent applications and licensing its intellectual property under appropriate conditions. As a company, we strive to respect the proprietary technology of others, just as we expect others to respect our proprietary technology.

We have taken the liberty of forwarding a copy of your letter to our pasteurization equipment supplier, ALKAR-Rapid Pak, Inc. for their review. Please let us know when your patent applications are published in this country or overseas, so that we may obtain a copy. Alternatively, we would be willing to receive, on a confidential basis, a copy of the file history (including allowed and pending claims) for each patent that you wish to license. Until we receive some specifics about the patents you claim will issue, it is not really possible for us to evaluate your proposal in any meaningful way.

In the meantime, please address all future correspondence on this matter to my attention.

Sincerely,


Randall C. Boyce
Vice President & General Counsel

cc: Robert Hanson, ALKAR-Rapid Pak, Inc.

UNITHERM FOOD SYSTEMS, INC.

502 Industrial Road
Bristow, Oklahoma 74010

Tel: 918-367-0197

Fax: 918-367-5440

E-mail: unitherm@unithermfoodsystems.com



COOK / CHILL SPECIALISTS

May 13, 2003

***All contents are Confidential
and considered Trade Secrets of Unitherm***

Jay Jandrain
CAROLINA TURKEYS

Via Fax # 919-658-5865

Dear Jay,

I met with my patent attorney on Friday, May 9, 2003 with respect to Unitherm's pasteurization technology. Attached is a copy of a letter from my attorney concerning the relevant scope of the claims currently pending in our patent application. I wanted to invite Carolina Turkeys to consider licensing that technology. Whilst the patent applications are pending, we are very pleased with the results of the patent office examination thus far. As you know Unitherm pioneered the inline smoking and browning technology and so it was only natural for us to consider this when looking at the pre-pasteurization process to be combined with in bag pasteurization.

We are looking to license the technology at 1¢ per lb of product. Please let me know if you would like to discuss this further.

Yours sincerely,

David Howard
President

DH/ka

Visit our web site at www.unithermfoodsystems.com

Please also note that most of these pending claims would be infringed regardless of whether the product is or is not chilled at any point prior to the post-pasteurization step.

06/27/2003 10:15 FAX 19196585

CAROLINA TURKEYS

0009

05/13/2003 09:48 FAX 918367544

UNITHERM

0004

05-12-03 04:28pm From: F388AT

9185838859

T-272 P.002/003 F-875

Mr. David Howard
UNITHERM FOOD SYSTEMS, INC.
May 12, 2003
Page 2

In addition, please recall that your pending patent applications also include numerous other claims. Moreover, the overall scope of the claims currently pending in your applications goes far beyond the specific pre and post-pasteurization process described above.

Yours very truly,

PELLERS, SNIDER, BLANKENSHIP,
BAILEY & TIPPENS



Dennis D. Brown

DDB:caw
2003.1

ALKAR • RAPIDPAK • SANI•MATIC

ALKAR-RapidPak, Inc. • 932 Development Drive, P.O. Box 260, Lodi, WI 53555 USA • Phone: 608-592-3211 Fax: 608-592-4039

faxed on 5-23-03

May 22, 2003

Jay Jandrain
Carolina Turkeys, Inc
PO Box 589
1628 Garners Chapel Rd
Mount Olive, NC 28365

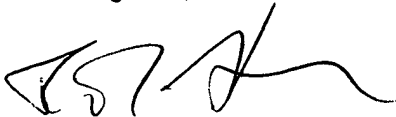
Dear Jay,

Regarding patent issues on our equipment, Alkar-RapidPak stands behind our products -- including indemnification against patent infringement. Enclosed are the patent indemnification terms that we include in all of our standard contracts.

Regarding the use of an Alkar-RapidPak surface pasteurizer as part of a process including pre-browning, bagging, post-pasteurization, and cooling of pre-cooked food products, we are aware of industry installations in operation since at least as early as 1999 that follow that process.

Please keep me informed of any further support that I can give you on this issue.

Best regards,



Robert Hanson
Vice President of Research & Technology

cc: Tim Moskal; Alkar-RapidPak
Tyrone Beatty; Alkar-RapidPak

UNITHERM FOOD SYSTEMS, INC.

502 Industrial Road
Bristow, Oklahoma 74010

Tel: 918-367-0197

Fax: 918-367-5440

E-mail: unitherm@unithermfoodsystems.com

COOK / CHILL SPECIALISTS

June 11, 2003

*All contents are Confidential
and considered Trade Secrets of Unitherm*

Michael Bliss
CAROLINA TURKEYS

Via Fax # 919-658-5865

Dear Mike,

Thank you for speaking with me last week. As I understand Carolina Turkeys is proceeding to pasteurize product in a format that uses the "browning oven" as the pre-pasteurizer. Thus eliminating the existing nitrogen tunnel and going straight to the bagger followed by the in-bag-pasteurizer process. As I have already indicated this will conflict with the patent pending applications that we have. You suggested that others are doing the same. This may be so.

My objective is to encourage Carolina Turkeys to avoid any conflict at a later date. I would ask that you encourage your company to meet with me and my patent attorneys to discuss this further. We are very optimistic with respect to the patent applications.

Yours sincerely,

David Howard
President

DH/ka

*How do you want
me to proceed?*

Visit our web site at www.unithermfoodsystems.com

UNITHERM FOOD SYSTEMS, INC.

502 Industrial Road
Bristow, Oklahoma 74010

Tel: 918-367-0197

Fax: 918-367-5440

E-mail: unitherm@unithermfoodsystems.com



COOK/CHILL SPECIALISTS

June 11, 2003

*All contents are Confidential
and considered Trade Secrets of Unitherm*

Dan Blackshear
CAROLINA TURKEYS

Via Fax # 919-658-6743

Dear Dan,

I would like to encourage you to meet with myself and my patent attorneys to discuss Pasteurization technology that is unique to Unitherm. As you are aware we have patents pending on a number of processes. You will recall seeing these processes at the Poultry Show last January and discussing them with us.

I understand that you may adopt or duplicate one of our processes later this year. I want to avoid any conflict with Carolina Turkeys and believe that we should meet to discuss this.

Please let me know if you are agreeable to a meeting.

Yours sincerely,

David Howard
President

DH/ka

Visit our web site at www.unithermfoodsystems.com

WARD AND SMITH, P.A.
ATTORNEYS AT LAW

J. TROY SMITH, JR.
(252) 672-5425
Fax (252) 672-5477
jts@wardandsmith.com

July 16, 2003

VIA TELECOPIER
ORIGINAL VIA U.S. MAIL

Mr. Rick L. Abegglen
Foley & Lardner
Verex Plaza
150 East Gilman Street
Madison, WI 53703-1481

RE: Carolina Turkeys - ALKAR-Rapidpak, Inc. -
Unitherm
Your Reference 038702-0115
Our File 850148-0001-001

Dear Rick:

I am writing following our telephone conversation of earlier this week. As I indicated to you, Carolina Turkeys elected to purchase the ALKAR processing equipment following ALKAR's display to Carolina Turkeys' representatives of the equipment and process in operation at the Billmar and Foster Farms plants. There was presented no issue of patent difficulties.

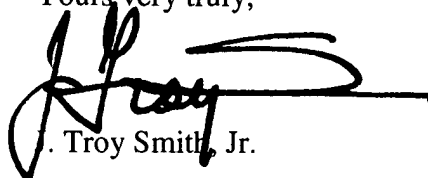
It is the position of Carolina Turkeys that the Unitherm claims properly should be investigated and resolved by ALKAR. It does not appear efficient or practical for Carolina Turkeys to be placed in the position of dealing with this issue independently. Given the schedule for construction and installation of the subject equipment, it is imperative that ALKAR undertake to investigate the claims of Unitherm as they impact ALKAR and Carolina Turkeys' use and operation of the equipment and process, make a determination upon which Carolina Turkeys comfortably can rely regarding such claims and, to the extent possible, resolve the controversy.

WARD AND SMITH, P.A.

Mr. Rick L. Abegglen
July 16, 2003
Page 2

As I stated in our telephone conversation, Carolina Turkeys is requesting that ALKAR confirm to us its intentions in this regard at the earliest possible date.

Yours very truly,

A handwritten signature in black ink, appearing to read "J. Troy Smith, Jr.", with a long horizontal flourish extending to the right.

JTS:cb

NBMAIN\547130\1

cc: Mr. C. Dan Blackshear
Mr. Mike Bliss

July 25, 2003

VIA FACSIMILE AND U.S. MAIL

FILE COPY

Mr. J. Troy Smith, Jr.
Ward & Smith
P.O. Box 867
1001 College Court
New Bern, NC 28563

Re: Carolina Turkeys - ALKAR-Rapidpak, Inc. - Unitherm
Our Ref. No.: 038702-0115
Your Ref. No.: 850148-0001-001

Dear Troy:

We are in receipt of your letter of July 16, 2003 regarding Unitherm. We have reviewed your letter with our client, ALKAR-Rapidpak, Inc. ("ALKAR"), and we would like to provide you with this response to your letter. Please be assured that ALKAR values its business relationship with Carolina Turkeys, and that ALKAR will make every effort to resolve any concerns Carolina Turkeys may have regarding the recent assertions by Unitherm regarding its pending patent application.

Initially, we note that your letter states that there "was presented no issue of patent difficulties" during the recent purchase negotiations between Carolina Turkeys and ALKAR for a pasteurizer/chiller. In case there has been a misunderstanding, we would like to make sure you understand that ALKAR first learned of Unitherm's pending patent application in mid to late May, 2003 when Carolina Turkeys forwarded Unitherm's letter of May 13, 2003 to ALKAR. About that same time, ALKAR also received similar information regarding Unitherm's pending patent application from Foster Farms. ALKAR had no information regarding Unitherm's pending patent application before mid to late May 2003.

As you know, on July 1, 2003 we sent a letter to David Howard of Unitherm, requesting that Unitherm provide us with information that would allow us to evaluate the scope of any patent rights Unitherm may have. On July 18, 2003 we received a response to our letter from Unitherm's patent attorney, but that letter did not provide us with any additional information that we could use to determine the scope of those rights or evaluate the likely validity of any claims which could issue from Unitherm's pending patent applications. The basic premise of the patent system is that patentees will disclose their inventions in exchange for exclusive rights. Unitherm appears to want to assert patent rights without disclosing the scope of those rights, and this makes it very difficult to respond effectively to their recent letters to Carolina Turkeys.

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003.437601.1

Mr. J. Troy Smith, Jr.
July 25, 2003
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Although it is very difficult to respond to Unitherm with such limited information about the scope of their pending patent application, we have a number of options which we can pursue now, before the patent application issues as a patent. We would also have a number of options we can pursue if and when a patent issues from Unitherm's patent application. We would be happy to discuss these options with you at your convenience.

As we have noted, we have very little information regarding the scope of the claims of Unitherm's pending patent application. The only concrete information we have is found in a letter dated May 12, 2003 from Unitherm's attorney to David Howard, which Carolina Turkeys received from Mr. Howard on May 13, 2003, and which Carolina Turkeys subsequently forwarded to ALKAR. Based on that limited information, we believe that it is unlikely that the claim scope outlined in that May 12, 2003 letter could be valid, for example in light of the attached U.S. Pat. No. 3,966,980 (the "980 patent"), that was filed in 1969, that issued in 1976, and that expired in 1993. An attached claim chart compares the disclosure of the '980 patent to the claim scope outlined in the May 12, 2003 letter.

In addition to the '980 patent, we have already found a substantial body of other prior art that appears to be relevant to the claim scope outlined in the May 12, 2003 letter, and our prior art search is continuing. Once we get a better picture of the filing date and the exact scope of the claims of Unitherm's pending patent application, if those claims correspond to the claim scope outlined in the May 12, 2003 letter, we think we will be able to find abundant prior art to invalidate or limit the scope of those claims.

Finally, we would like to make sure that you understand that there is no issue of direct infringement of Unitherm's pending patent application by the ALKAR pasteurizer/chiller equipment that Carolina Turkeys is purchasing from ALKAR. The ALKAR pasteurizer/chiller provides only a portion of the steps in the claim outlined in the May 12, 2003 letter. Further, in a conversation on July 15, 2003 David Howard assured Phil Hinderaker of ALKAR that ALKAR equipment "does not infringe." There is no issue of contributory infringement by the ALKAR pasteurizer/chiller since that equipment has many noninfringing uses. ALKAR could not be found to have induced Carolina Turkeys to infringe, since at this time Unitherm has no patent rights that could be infringed.

The only possible direct infringement of Unitherm's pending patent application would be by Carolina Turkeys, hypothetically assuming that a patent issuing from Unitherm's pending patent application would be valid and would cover Carolina Turkey's intended process. There is nothing about the ALKAR pasteurizer/chiller that increases this risk, and this risk would exist no matter who supplied a pasteurizer/chiller to Carolina Turkeys. ALKAR's standard terms and conditions already provide indemnification against direct infringement by the ALKAR pasteurizer/chiller. ALKAR is willing to discuss ways to share the risk of infringement by Carolina Turkeys, for example through a negotiated agreement with Carolina Turkeys to share risks, or through purchase of an insurance policy from a third party.

Mr. J. Troy Smith, Jr.
July 25, 2003
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Please be assured that ALKAR is working diligently to resolve this issue, and we will keep you posted on our activities as we continue to deal with this issue. We would also welcome any comments or suggestions you may have.

Please give me a call if you have any questions.

Respectfully,



Rick L. Abegglen

Enclosures

cc: Mr. Phil Hinderaker (w/ encls.)
Mr. Bob Hanson (w/ encls.)
Mr. David Walsh (w/ encls.)

**CLAIM CHART OF UNITHERM PATENT APPLICATION
VS. U.S. PAT. NO. 3,966,980 AT COL. 3, LINE 68-COL. 4, LINE 14**

1.	Method comprising	
	Pre-pasteurizing precooked product by delivering the precooked product through a browning oven;	<p>"Meat is held in a refrigerator or freezer until ready to be processed according to the invention; it then goes to the meat preparation unit, in which the meat is trimmed, sliced, or boned as necessary and readied for any cooking that may be done prior to sealing in plastic pouches. Next any preparatory cooking, such as grilling beef patties or browning fried chicken, is done," ...</p> <p>(Browning the fried chicken, described at col. 4 lines 50-53 as deep fat frying about 2-5 minutes, would inherently provide pre-pasteurization)</p>
	bagging the browned product;	<p>"and the meat is then ready for the high vacuum processing step. In this step the meat is encased in a plastic pouch, which is then substantially evacuated of air and sealed under a high vacuum;."</p>
	post-pasteurizing the bagged product by delivering the bagged product through a hot water design or any other heating system;	<p>"the pouch containing the meat is then immersed in a hot water bath until the meat is cooked to the desired extent,"</p> <p>(Immersing the pouch containing the meat would inherently provide post-pasteurization)</p>
	and then cooling the post-pasteurized product using a brine chiller or any other type of chilling system	<p>"after which it is immersed in an ice water bath to chill."</p>

- [54] METHOD OF COOKING AND STORING
FOOD IN FLEXIBLE BAGS
- [75] Inventor: Ambrose T. McGuckian, Bethesda,
Md.
- [73] Assignee: A.G.S. Food System Inc., Greenville,
S.C.
- [22] Filed: May 2, 1969
- [21] Appl. No.: 821,181
- [52] U.S. Cl. 426/393; 426/296;
426/412; 426/418
- [51] Int. Cl.² B65B 25/22
- [58] Field of Search 99/174, 194, 192, 171 H;
99/1, 107; 426/296, 412, 393, 418

3,169,069	2/1965	Hanson et al.	99/194
3,208,851	9/1965	Antinori et al.	99/194 X
3,262,787	7/1966	Ellis	99/174
3,359,122	12/1967	Zebarth et al.	99/194
3,597,228	8/1971	Jeppson et al.	99/107
3,607,312	9/1971	Ready	99/107

OTHER PUBLICATIONS

Meat Handbook, Levie, Avi Publishing Inc. 1963, pp. 48, 49.

Poultry Processing and Marketing, Apr., 1956, p. 13.

Quick Frozen Foods, June, 1956, pp. 58, 59.

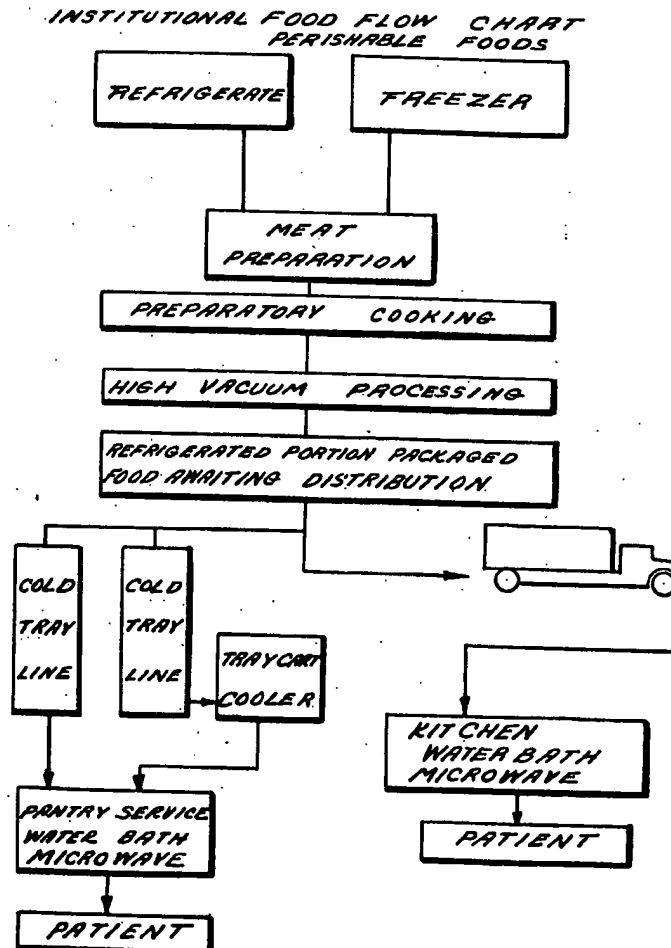
Primary Examiner—Steven L. Weinstein
Attorney, Agent, or Firm—Cushman, Darby & Cushman

- [56] References Cited
- UNITED STATES PATENTS
- | | | | |
|-----------|---------|------------------|-----------|
| 2,364,049 | 12/1944 | Bensel | 99/193 |
| 2,714,557 | 12/1955 | Mahaffy | 99/174 |
| 2,779,681 | 1/1957 | Sell et al. | 99/107 X |
| 2,825,652 | 3/1958 | Berkowitz | 99/174 X |
| 3,008,837 | 11/1961 | Kaplan | 99/194 X |
| 3,088,290 | 5/1963 | Zearfoss | 99/194 UX |
| 3,132,029 | 5/1964 | Beck | 99/174 |

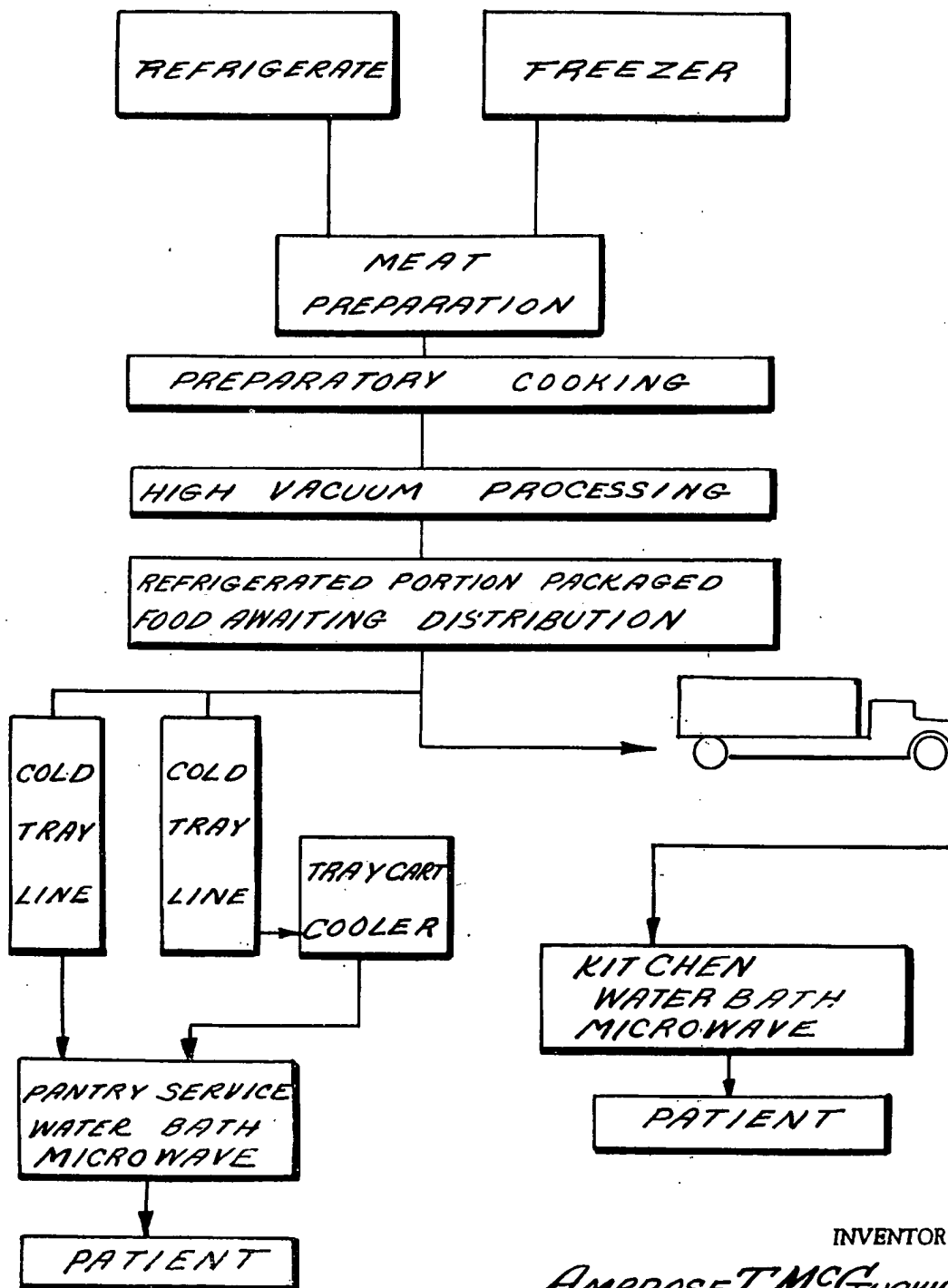
[57] ABSTRACT

A method of cooking foods in vacuum packages, in which the food is encased in a plastic pouch, the pouch is evacuated of air and sealed under high vacuum, the package is immersed in a thermostatically controlled hot water bath to cook the food, then quick chilled and stored at 28°–32°F.

26 Claims, 1 Drawing Figure



INSTITUTIONAL FOOD FLOW CHART
PERISHABLE FOODS



INVENTOR

AMBROSE T. MCGUCKIAN

BY *Cushman, Dalry & Cushman*
ATTORNEYS

METHOD OF COOKING AND STORING FOOD IN FLEXIBLE BAGS

This invention relates to a system for pasteurizing and cooking raw or partially cooked foods in vacuumed packages, using thermostatically controlled water as the heat element, quick chilling of the product after cooking and holding unfrozen in refrigerated storage at a temperature range of 28° to 32°.

Under this system every menu item in the category of entrees, vegetables and special diet items normally prepared by cooking can be processed retaining the odor and flavor and succulence of freshly prepared food to the time the sealed vacuumed packaged food is reheated and ready for opening and serving, although the results are particularly outstanding with meat such as beef and poultry.

The system has several unique advantages. With the cooking completed within the vacuumed package the aroma, flavor and fresh taste of food is captured and retained until the reheated package is opened at the point of consumption. Nutritional qualities at point of consumption are higher than traditionally prepared food. Processing and storing procedures completely inhibit the growth of harmful bacteria from time of processing to time of consumption and the food has a shelf life of at least sixty days. Problems associated with frozen prepared foods are not apparent in this method; there is no oxidation or dehydration or loss or lack of bloom or bouquet as is noticed in frozen food. Practically every entree or vegetable listed on a menu can be processed satisfactorily.

The method of this invention is particularly advantageous for preparing food for institutional uses, for example, in hospitals, universities, military installations, hotels and restaurants, and schools. In the following description a hospital system is used by way of example.

Getting food to patients at its peak of quality and temperature is a major problem of hospital dietary staffs. Traditional methods of hospital food service have resulted in a spiral of every-increasing costs in food, wages, equipment and supplies without any noticeable improvement in quality standards. Providing patients with acceptable meals meeting minimum temperature requirements, yet avoiding institutional dullness of the served foods is a continuing problem.

Another problem of dietary departments functioning along traditional lines is personnel turnover. Better hours of work and better pay in other job categories causes a never-ending personnel replacement program with its inevitable adverse effect on standards in food preparation, presentation, service and cleanliness. Wage increases have not resulted in any increase in work productivity.

Despite the best efforts of informed specialists and consultants in the field of hospital food service, no major systems improvement in conventional procedures has occurred in the past several years which would substantially increase productivity, retard spiraling food service costs or give patients hotter, more appetizing food, with the possible exception of reheating by microwave.

All known convenience food methods were thoroughly investigated to determine their possible inclusion in the present system. Several economic advantages were noted in hospital use of frozen convenience

foods including a standard of quality, a reduction in production personnel, equipment, space and preparation soil. Over-production was minimized and less food was used. Savings were effected when convenience foods replaced conventional foods in low productivity-high cost operations. Patient acceptability was good when quality was good; however, among the disadvantages of frozen foods are: fluctuations in temperature in the channel of distribution have an adverse effect on quality, food bloom or bouquet is less noticeable, menu variety is limited, frozen convenience foods are less than fully responsive to regional tastes and thawing is a continuing problem in time, labor and space.

In the method of the present invention, food is preserved by refrigeration at 28°-32°F, rather than freezing. This offers many advantages: greater flexibility in the types of food that can be processed; refrigeration is less costly than freezing; processing techniques are simpler; changes in food texture, structure and chemistry are minimal. Frozen products require more handling and more time than refrigerated products in their movement from freezer to the tempering refrigerator. Refrigeration preserves the product long enough for orderly consumption if regionally processed.

The present invention by achieving a more effective system of food service through temperature controlled refrigeration just above freezing rather than freezing, meets the following objectives:

a. Procedures are so flexible that every entree and vegetable, including those for special diets, for lunch and dinner can be satisfactorily processed. In other words the menu controls what is to be processed. The system makes use of as broad a spectrum of preparation procedures as found in conventional food preparation.

b. The aroma, flavor and fresh taste of food are captured and retained to the point of consumption.

c. There is complete inhibition of growth of any harmful bacteria from time of processing to time of consumption.

d. There is a shelf life of at least sixty days.

e. There is improved nutritional qualities at point of consumption over traditionally prepared foods.

f. Patients and staff are assured hot satisfying meals.

Basic to the achievement of the aforementioned objectives is the requirement that quality control measures be religiously followed from development of ingredient specifications, to preparation, processing, storing, distributing, reheating and final delivery to the patient.

In developing the present invention it was found that fully cooked foods, vacuum packaged, pasteurized, chilled and held at low refrigerated temperatures for a period of thirty days did not meet required conditions. Of twelve processed items, randomly chosen and taste tested by a test panel, two were considered very acceptable and ten were rated barely satisfactory. "Tired food" best describes the test panel's reaction to food fully cooked before processing.

The solution to this according to the invention is to stop packaging and processing fully cooked food. Instead, the cooking is completed in the pouch after it has been vacuum sealed, thereby capturing and retaining the flavor of food at its peak of excellence followed by keeping at 28°-32°F. until use. Depending on the food item itself, it is used in bulk or may be portioned in one to five portions and vacuum packaged while at various degrees of doneness, such as prior to being fully cooked as with a stewed type item such as meat or chicken

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pot-pie, or when partially cooked such as fried chicken. Grilled items, such as chopped sirloin steak, are placed on a grill just long enough to sear and give surface color. Some foods are placed in the package raw and completely cooked within the pouch in a temperature controlled water bath.

A description of the present processing system follows: The ingredients for a particular recipe are assembled either raw or partially cooked as prescribed, portioned, packaged under vacuum; then pasteurized and cooked for a specified time in a thermostatically controlled water bath. Then the product is cooled or quick chilled in an ice water tank, then stored at 28° to 32°F, the lowest holding temperature range possible to hold food without freezing. These procedures inhibit the growth of any harmful bacteria and permit a proven shelf life of at least 60 days. The temperature of storing is critical, both higher and lower temperatures being unsatisfactory.

Distribution of the refrigerated food to satellite facilities using the food outside the area of preparation is accomplished according to the invention by means of covered plastic containers with the product surrounded by crushed ice. These food containers are transported in the delivery vehicle of the receiving hospital. Upon receipt at a satellite hospital, food items for the approaching luncheon meal are placed in their sealed pouches in a hot water bath for a period of thirty to forty minutes in advance of service to reach an internal temperature of 160°F. When plated, the entree and two vegetables are energized for ten to twenty seconds in a microwave oven, immediately prior to their distribution to the patient. This microwaving is an insurance measure to make certain that patients get hot food. An optional method to give even greater assurance of heat retention until the patient is ready to eat is to place a compatible plastic film over the plate and contents, then microwave and seal the film around the plate. Care must be taken to use a film that does not produce a chemical odor run off when microwaved.

Patient reaction to the system at the satellite hospital was favorable. Volatile aroma and flavor factors were noticeably present when the patient received his food. It was found that the patient food service was no longer a problem and food costs were substantially less. Dietary personnel like the system — no rush, no fuss, no mess, no pots to clean. Working conditions were quiet and clean. Bacteriological checks have been excellent.

While stress was placed on achieving a better system of hospital food service, better specifically from the patient's point of view, so that food served would compare favorably with the best of home cooking — the economic aspects are also important. Setting the production area of the dietary department up as a manufacturing center will greatly increase productivity in a shorter work span. Seven day requirements can be produced in a five day, forty hour week. Better controls in quality standards and portion sizes are also possible. Meat shrinkage in cooking can be substantially reduced. Special diet items can be produced in quantity, affording substantially savings in man hours. By banking ready prepared food, late trays and new patients can be handled without difficulty and with the expenditure of fewer manhours. The trend toward increased food and labor costs can be arrested.

The invention will be further described with reference to the drawing, which shows a flow chart of the steps of the process as applied to meat. Meat is held in

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a refrigerator or freezer until ready to be processed according to the invention; it then goes to the meat preparation unit, in which the meat is trimmed, sliced, or boned as necessary and readied for any cooking that may be done prior to sealing in plastic pouches. Next any preparatory cooking, such as grilling beef patties or browning fried chicken, is done, and the meat is then ready for the high vacuum processing step. In this step the meat is encased in a plastic pouch, which is then substantially evacuated of air and sealed under a high vacuum; the pouch containing the meat is then immersed in a hot water bath until the meat is cooked to the desired extent, after which it is immersed in an ice water bath to chill. The next step in the flow chart shows the food in storage refrigeration, held at 28°-32°F, until ready for use. As needed, the food may be removed from the storage refrigerator and distributed, being either transported in refrigerated containers at 28-32°F to satellite facilities, or used at the place of processing, shown in the flow chart at lower right and lower left respectively. In either case, when the food reaches the kitchen, it is placed in a hot water bath, while still in the pouch, for sufficient time to warm it through, and is then portioned and plated for serving.

As needed, the food may be removed from the refrigerated storage and will either go directly to an institutional kitchen, located in the same facility as the food processing unit, or it may be transported to another facility or satellite unit, maintaining the temperature during transport at 28°-32°F. The alternate paths are shown in the flow chart at the bottom left and bottom right, respectively. When ready to be served, the food while in the pouch is warmed in a water bath.

The water acts as a heat transfer means only, and does not come into contact with the food during either the cooking or the subsequent rewarming.

The plastic pouches which are used to encase the food may be of any suitable material that is inert to the food, impervious to air and water, and will remain plastic at the high and low temperatures encountered during processing. A suitable material is Saran (a copolymer of vinylidene chloride with acrylonitrile 80:20) or irradiated polyethylene or irradiated polyethylene coated with Saran, polypropylene, etc.

Processing procedures will vary with the menu item. Fried chicken for example will first be deboned of protruding sharp bones which might pierce the plastic type pouch causing leakage. Next seasoned breading mixture is applied. Then the breaded chicken is deep fat fried just enough to set the breading and give the desired color to the chicken about 2-5 minutes. It is then quick chilled, vacuum packaged in portions of one to five pieces and water bath cooked until the internal temperature adjacent to the bone reaches 180°F. With the water bath thermostat set at 200°F the cooking time is 45 minutes. After cooking, the chicken is chilled in an ice water bath to about 32°F and then stored at 28°-32°F until ready for consumption. To prepare the chicken for eating, it is immersed in a water bath at about 200°F, while still sealed in the pouch, to warm to serving temperature. The chicken may then be dropped into a deep-fat fryer for 1 minute to re-crisp it, since the temperature in the chicken will soften the outside breading while it is in the pouch.

Fresh ground meat is first grilled on a conventional grill just long enough to give surface color and to set the meat to withstand the vacuum pressure. It is then

quick chilled, vacuum packaged in portions of one or several portions and cooked until the internal temperature reaches 170°F. With the water bath thermostat set a 200°F processing time is 15 minutes. Raw chicken livers are vacuum packaged five portions to a package and cooked in a 200°F water bath for 30 minutes achieving an internal temperature of 180°F. Canadian bacon is portioned and vacuum packaged five portions to a package and cooked in 200°F water bath for 30 minutes, reaching an internal temperature of 180°F. Other types of pork, such as pork roast are also cooked to an internal temperature of 180°F.

Vegetables also, depending on local tastes, are processed uncooked, as greens; partially cooked, as frozen mixed vegetables; or fully cooked, as canned beans. The same processing procedures may be followed with various seasonings and sauces added prior to vacuum packaging to give each vegetable a distinctive flavor. All are processed until an internal temperature of 180°F. is reached.

According to the method of the invention for cooking beef, both primary and retail cuts, while vacuum packaged are cooked at low temperature in a temperature controlled water bath to achieve maximum tenderness through enzymatic action with minimum loss of meat weight.

Size of a cut of beef processed under this method is only limited by the size of the vacuumed package material that can contain it. Steamship rounds and family sized roasts may be processed with equally satisfactory results.

The cook tank with thermostatically controlled heating elements must be capable of maintaining the desired water temperature with minimum fluctuations of temperature giving steady constant heat penetration from all surfaces of the package.

The preferred thermostatic temperature for beef is between 140°-150°F. more preferably 143° to 148°F. Temperatures within this range with time allowed for complete heat penetration to the center of the mass, usually about 18 hours for a 60-65 lb. roast or 5-7 hours for a 6-10 lb. roast, result in the meat being pasteurized and cooked rare with a minimum loss of meat weight. Shrinkage, using the method of this invention, is about 11-16 percent, as compared with about 25-50 percent when using conventional cooking methods. The meat weight loss is equalized by the weight of extruded natural meat juice captured within the sealed package during the cooking process, for example, the juices usually equal about 15 percent of the weight. This natural beef juice can be used for au jus, stock or gravies. As temperatures increase about 148°F. loss of meat weight increased proportionately.

In setting the thermostatically controlled water bath at the internal temperature which will give the degree of doneness desired, maximum advantage is taken of the tenderizing action of the natural meat enzymes on connective tissue. Therefore, the temperature for cooking beef must be maintained at less than 160°F, at which temperature the enzymes are deactivated. As temperature increases above 148°F. enzymatic action lessens, progressively decreasing the tenderizing effect. One of the novel aspects of the invention is thermostatically setting the temperature at the desired internal temperature of the beef and maintaining it constantly at that temperature throughout the cooking process, in order to make maximum use of the natural enzymes in tenderizing the meat during cooking process and hav-

ing the same degree of doneness uniform throughout. Thus if an internal cooked temperature of 145°F is desired the thermostat is set at 145°F and that temperature is maintained throughout the cooking process. If the conventional procedure were used enzymatic action and its tenderizing effect would not be nearly as effective and the degree of doneness would not be uniform throughout the cooked meat, it would be more done on the surface. Under the present method beef graded U.S. Good, when cooked will compare favourably with top choice or prime in tenderness and flavor.

Continued cooking after the center of the meat has reached the set temperature will not change the degree of doneness. It will continue to be no more done than the controlled temperature allows. However, enzymatic action will continue increasing the degree of tenderness. It is possible to leave the packaged beef in the water bath too long, with enzymatic action continuing and completely eroding the meat connective tissue, resulting in a complete loss of chewability in the meat. It can become so tender that it will break up in one's mouth.

After cooking is completed the packaged meat is immersed in an ice water bath to draw out the heat, stop the enzymatic action, close the pores, stop the flow of juices and inhibit the opportunity for spore formation and reduce the meat temperature.

When the packaged beef is cooled preferably to an internal temperature of about 34°F. or slightly below it is removed from the chill tank and stored in a refrigerator specially modified to hold at a temperature within the temperature range of 28°-32°F. At this temperature the meat will not freeze and the growth of any harmful bacteria is inhibited. Shelf life is extended far beyond that of meat products held in walk-in refrigerators with temperature conventionally set at 34° to 40°F. Use of low temperature storage of cooked beef at 28°-32°F. is novel with this invention and will help to maintain the natural cooked quality of beef far better than freezing or holding at normally accepted temperatures of 34°-40°F.

Reheating for serving may be by water bath or by conventional methods. Water bath reheating may be done with the meat and juice still vacuumed packaged; or the package can be opened, the juice poured out into a container, seasoned, thickened, possibly colored and simmered. The meat is then portion sliced and placed in a ration pan. Juice in a sufficient amount to keep the meat moist is added. The ration pan is placed in a thermostatically controlled heating unit set to give the desired degree of doneness: rare-medium-well done. Meat processed and reheated as described above has no warmed-over taste.

The process may also be used for the preparation of foods such as chicken pot-pies, beef pot pies and stews as set forth supra.

For pot-pies, the meat and vegetables are first partially cooked separately, for example, by the method of this invention. The meat is then cubed or diced and combined with the vegetables and sauce in a plastic pouch, where the final blending takes place. The pouch is then immersed in a water bath for completion of the cooking, after which it is cooled and stored at 28°-32°F. as described above.

The crusts for the pot pies are prepared and packages separately, then are put on the pie when it is put on the plate for final heating and serving.

The following examples illustrate the invention:

All temperatures are in degrees Fahrenheit.

EXAMPLE 1

A frying chicken which had been cut into 4 serving pieces was deboned to remove any sharp and protruding bones. It was then breaded with a seasoned breading mixture and fried in a deep-fat fryer for just long enough to give it a golden color and set the breading (about 3 to 4 minutes). The chicken was then quick chilled to at least room temperature and put into a plastic Cryovac (saran) pouch. The air was drawn from the pouch under high vacuum and the pouch sealed under vacuum. The pouch with its contents was immersed in a water bath held at 200°F. for 45 minutes, and was then immersed in an ice water bath to chill.

The fried chicken was stored in a refrigerator at 28°-32°F. until ready for use, at which time it was immersed in a hot water bath (200°F) for 30 minutes to warm. It was then removed from the hot water bath, the pouch removed, and the individual pieces of chicken were dropped into a hot deep-fat fryer for 1 minute to crisp the outside.

EXAMPLE 2

A 60 lb. round of beef was encased in a plastic pouch and the pouch was evacuated of air and sealed under low vacuum. The beef in its casing was then immersed in a water bath held at 145°F. and cooked at this temperature for 18 hours. The meat was then chilled in an ice water bath to an internal temperature of 34°F. and stored at 28°F. until ready for use.

The meat was cooked to the rare degree of doneness. If desired, the rare beef after warming in a H₂O bath and removing the pouch may be put into the oven for about ½ hour to give an appetizing color to the outside; if medium or well-done beef is desired, the meat is sliced into portions, which may be placed in a ration pan and juice is added to each portion to keep it moist. The beef is placed in an oven and cooking completed to the desired degree of doneness, at for example, 160°F. for medium and 170°F. for well done.

EXAMPLE 3

A 7 lb. roast of beef was prepared as in Example 2, except that the plastic pouch was sealed under high vacuum, and the roast was cooked for 5 hours. The beef was chilled after cooking as above, and stored at 28°-32°F.

EXAMPLE 4

One pound of raw chicken livers were marinated in buttermilk for ½ hour. The buttermilk was then drained off, and the livers placed in a plastic pouch which was evacuated of air and sealed under high vacuum. The pouch was immersed in a water bath held at 180°F for ½ hour, then chilled in a water bath to a temperature of 32°-34°F. The chicken livers, in the pouch were stored at 28°-32°F. until needed.

There can also be used turkey liver, calves liver, goose liver.

EXAMPLE 5

1 pound of chopped sirloin of beef was formed into 5 equal-sized patties, which were grilled for 1 minute on each side to brown the meat and set the patties so they don't crumble. The beef was then placed in a plastic Cryovac type L (irradiated polyethylene) pouch which was substantially evacuated of air and sealed under

high vacuum. The pouch was immersed in a hot water bath with the thermostat set at 200 F, for 15 minutes. The pouch was removed from the hot water bath, chilled in an ice water bath to a temperature of 34°F. and stored in a refrigerator at 28°-32°F.

EXAMPLE 6

1 pound of beef that had been cooked as in Example 2 was cubed to ¾ in. cubes. The beef was combined with ½ pound of peas, ½ pound of diced carrots and ½ pound of diced white potatoes, the potatoes having been boiled for 5 minutes before combining with the other ingredients. A seasoned sauce was added and all ingredients were encased in a plastic pouch which was substantially evacuated of air and sealed under a high vacuum. The pouch was immersed in a hot water bath with the thermostat set at 200°F. for 30 minutes, reaching an internal temperature of 180°F. The pouch was removed from the hot water bath and chilled in an ice water bath to a temperature of 34°F. It was then stored at 28°-32°F.

Pie crust dough was formed into 5 individual potpie crusts, 4½ in. across to form a top crust for each pie. The crusts were baked just until done, cooled and encased in plastic pouches. The pouches were substantially evacuated of air and sealed under a high vacuum. The crusts were then stored at 28°-32°F. When ready for use, the crusts and beef mixture were warmed in a water bath, while still sealed in the pouches. The pouches were then opened and the pies made up on serving plates. Each serving was microwaved for 10-20 seconds after assembling. The pot-pies may also be made with, for example, chicken or turkey, instead of beef.

What is claimed is:

1. A method of preparing and preserving ready-to-eat foods comprising
 - a. providing uncooked, edible food for preparation;
 - b. vacuum packaging said food in an air and water impervious plastic pouch;
 - c. immersing said package in water maintained in the range between 140° to 212°F. until said food is cooked;
 - d. quickly immersing said package in chilled water to bring the temperature of the food into the range of 34°F. to 32°F;
 - e. maintaining said food at a temperature in the range of 28°F. to 32°F. until needed for consumption;
 - f. immersing said package in hot water to bring the food to serving temperatures;
 - g. removing said food from the hot water and opening said package; and,
 - h. placing said food upon plates and serving.
2. A method for cooking raw or partially cooked foods in vacuum packages, comprising the steps of:
 1. encasing the food in a plastic pouch,
 2. substantially evacuating air from the pouch and sealing under a high vacuum,
 3. immersing the food encased in the pouch in a hot water bath held at a constant elevated temperature for a period of time sufficient to at least partially cook the raw food or further cook the partially cooked food,
 4. removing the packaged food from the hot water bath and chilling it for a period of time sufficient to attain an internal temperature of the food of 32°-34°F. which is above but near the freezing point thereof, and

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5. storing the cooked food in the pouch above the freezing temperature of the food and at a temperature of 28°-32°F.

3. The method of claim 2, wherein the food to be cooked is selected from beef and poultry.

4. The method of claim 2, wherein the food to be cooked is the filling for a pot-pie, consisting essentially of partially cooked diced meat which has been combined with diced vegetables and a sauce.

5. The method of claim 2 including the additional step of reheating for serving by heating the stored food in the pouch in a water bath at a thermostatically controlled temperature.

6. A method according to claim 2 wherein the hot water bath is maintained at a temperature not over 200°F.

7. The method of claim 2, wherein the food to be cooked is raw beef, and the temperature of the hot water bath in which the food is cooked is 140°-150°F.

8. The method of claim 7, wherein the temperature of the hot water bath is 143°-148°F.

9. The method of claim 2 wherein the food to be cooked is chicken which has been coated with a breading mixture and fried in deep fat for two to five minutes.

10. The method of claim 9, wherein the temperature of the hot water bath is 200°F. and the chicken is immersed in the water bath for a period of time sufficient to be cooked completely.

11. A method according to claim 2 wherein the chilling to 32°-34°F. is in an ice water bath.

12. A method according to claim 11 wherein the food to be cooked is raw beef and the temperature of the hot water bath in which the food is cooked is 140°-150°F.

13. The method of claim 2 wherein the food to be cooked consists essentially of raw beef.

14. The method of claim 13 wherein the cooking is done in a hot water bath at 140°-150°F.

15. The method of claim 14 including the additional step of reheating for serving by heating the stored beef in the pouch in a water bath at a thermostatically controlled temperature.

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16. A method according to claim 2 consisting essentially of the steps set forth.

17. A method according to claim 16 wherein the food to be cooked is raw beef.

18. A method according to claim 17 wherein the temperature of the hot water bath in which the food is cooked is 140°-150°F.

19. A method of preparing and preserving ready-to-eat foods comprising

- a. providing edible food for preparation,
- b. vacuum packaging said food in an air and water impervious plastic pouch,
- c. heating until the internal temperature of said food is 140° to 180°F.,
- d. quickly chilling said food to a temperature in the range between 34°F. and 32°F.,
- e. maintaining said food at a temperature in the range between 28°F. and 32°F. until it is needed for consumption; and
- f. heating said food for serving.

20. A method according to claim 19 consisting essentially of the steps set forth.

21. A process according to claim 19 wherein the quick chilling is at 32°F.

22. A process according to claim 19 wherein the quick chilling is at 34°F. and the food is then reduced to a temperature in the range between 28°F. and 32°F. and thereafter maintained at between 28°F. and 32°F. until it is needed for consumption.

23. The method of claim 19 wherein each of the two heating steps is performed by immersing said vacuum packaged food in heated water.

24. The method of claim 23 wherein the water temperature is between 140°F. and 200°F.

25. The method of claim 24 wherein the chilling step is performed by immersing said vacuum packaged food in chilled water.

26. The method of claim 25 wherein after the chilling step, said vacuum packaged food is reduced to and maintained at a temperature of approximately 28°F.

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August 1, 2003

VIA TELECOPIER
ORIGINAL VIA U.S. MAIL

Rick L. Abegglen, Esq.
Foley & Lardner
PO Box 1497
Madison, WI 53701-1497

RE: Carolina Turkeys - ALCAR - Rapidpak, Inc. -
Unitherm
Your File 038702-0115
Our File 850148-0076-001

Dear Rick:

We have received your letter to J. Troy Smith, Esq. dated July 25, 2003. Troy and I are working together on this matter. Although the issues that have been raised by Unitherm remain unresolved, we acknowledge the constructive spirit in which you are proceeding. Insofar as the relationship between our clients is concerned, we have prepared and are enclosing for your review and consideration the indemnification provision which our client, Carolina Turkeys, proposes to include as a condition to proceeding with the equipment and process now being contemplated by your client, ALCAR - Rapidpak, Inc.

Please review the enclosed provision, then give me a call at your earliest convenience so that we can discuss any thoughts or comments you might have.

Thank you for your attention to this matter.

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WARD AND SMITH, P.A.

Rick L. Abegglen, Esq.

August 1, 2003

Page 2

With kind regards, I am

Yours very truly,



Donald J. Eglinton

DJE:jl

NBMAIN\549819\1

Enclosure

cc: Mr. C. Dan Blackshear (via telecopier and U.S. Mail)

Mr. Mike Bliss (via telecopier and U.S. Mail)

J. Troy Smith, Esq.

INDEMNIFICATION - DRAFT (August 1, 2003)

PATENTS, TRADEMARKS, COPYRIGHTS and TRADE SECRETS.

ALKAR-Rapidpak, Inc. ("Seller") shall, at its expense, defend any and all claims, actions, proceedings and lawsuits that may be instituted by any person or entity against Carolina Turkeys ("Buyer") for alleged infringement of any United States patent, trademark or copyright or for alleged misappropriation of any trade secret relating in any way to any products (including, without limitation, components or equipment) manufactured or furnished by Seller, or to any device, processes, systems or methods into which such products are designed, positioned, incorporated, included, specified or placed by or on the basis of any action of Seller, provided that Buyer shall have given Seller prompt written notice of any such claim, action, proceeding or lawsuit and promptly have transmitted to Seller written notice received by Buyer from any person or entity asserting a claim of any such claim and legal process and papers served upon Buyer in connection with any such actions, proceedings or lawsuit, and provided further that Buyer shall permit Seller through its counsel, either in the name of Buyer or in the name of Seller, to defend the such claim or lawsuit and cooperate reasonably with Seller and its counsel in the defense of any such claim or lawsuit. In addition, Seller shall, at its expense, fully and completely indemnify and hold harmless Buyer from any and all losses and damages (including, without limitation, direct, consequential, incidental, compensatory, statutory, and exemplary damages) and costs and expenses (including, without limitation, court costs, expert witness fees, and attorney's fees) arising out of or relating in any manner to any such claim, actions, proceedings or lawsuit, regardless of whether such losses, damages, costs or expenses become the subject of any final judgment or court order. Further, if any such claim or lawsuit results in the issuance of injunctive relief, of any kind or form, by reason of such alleged infringement or misappropriation or if Seller shall become subject to any claim, action, proceeding or lawsuit by reason of such alleged infringement or misappropriation, Seller immediately shall, at its expense, either (i) procure for Buyer the unqualified right to continue using such products, processes or methods, or (ii) replace the products, processes or methods with products and processes that are satisfactory to Buyer and that do not infringe any United States patent, trademark or copyright, in which case the duties to defend and indemnify undertaken by Seller to Buyer in this provision

shall apply, with equal force and in the same manner, to any and all such replacement products, processes and methods.

If, after receiving written notice from Buyer of any such claim, action, proceeding or lawsuit involving alleged infringement of and United States patent, trademark or copyright or alleged misappropriation of a trade secret, Seller fails properly to defend or indemnify Buyer as required in this provision, Buyer shall have the unqualified right and power to assert and present its own defense, and Seller shall be fully responsible and liable to Buyer, without regard to the manner in which any defense is asserted and presented, not only for the express obligations to defend and indemnify that are undertaken in this provision, but also for any compromise or settlement made and entered into thereafter by Buyer for the purpose of resolving any such claim, action, proceeding or lawsuit.

The attached fax was received from 2526725477 on 8/1/2003 at 4:43:19 PM

<http://wimadfax02/genifax/openattach.asp?type=view&jobid=026810>

August 21, 2003

VIA FACSIMILE AND U.S. MAIL**FILE COPY**

Mr. Donald J. Eglinton
Ward & Smith
P.O. Box 867
1001 College Court
New Bern, NC 28563

Re: Carolina Turkeys - ALKAR-Rapidpak, Inc. - Unitherm
Our Ref. No.: 038702-0115
Your Ref. No.: 850148-0001-001

Dear Donald:

We are in receipt of your letter of August 1, 2003 regarding Unitherm. We have reviewed your letter with our client, ALKAR-Rapidpak, Inc. ("ALKAR"), and we would like to provide you with this response to your letter. I apologize for my delay in sending this response, which was ready to send on August 7, 2003, but inadvertently not sent until now.

Once again, please be assured that ALKAR values its business relationship with Carolina Turkeys, and that ALKAR's efforts to deal with Unitherm's unfair assertion of patent rights under unpublished patent applications are continuing. In particular, we are preparing a petition for access to Unitherm's pending patent applications under 37 CFR 1.14, which says that the Patent Office will permit access to a patent application in "special circumstances" where "an applicant has relied upon his or her application as a means to interfere with a competitor's business or customers." As you know, we have already sent prior art to Unitherm, which Unitherm will be obliged to provide to the Patent Office under their duty of disclosure. If they provide the prior art to the Patent Office, this should limit the scope of their claims. If they do not provide the prior art to the Patent Office, this could make unenforceable any patent that may issue from their pending patent application. We are also preparing a Protest under 37 C.F.R. § 1.291 against the pending patent application, which would include any prior art we believe to be relevant to the patentability of the claims of that pending patent application. We would welcome any prior art Carolina Turkeys can provide that would be relevant to the claims of Unitherm's pending patent applications.

It would also be helpful to us if you could request information from Unitherm regarding their pending patent applications. In particular, the filing date and the prosecution history would be of interest, including any allowed claims. We have already requested this information without success, so you may not get any actual information from Unitherm. Still, if we can show that they refuse to provide this information to Carolina Turkeys, we think this could strengthen our petition to the Patent Office for access to Unitherm's pending patent applications.

FOLEY & LARDNER

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003.440411.1

Mr. Donalt Eglinton
August 21, 2003
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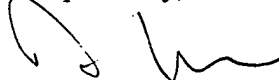
As you know, we have very little information regarding the scope of the claims or the filing date of Unitherm's pending patent application. Further, as discussed in my July 25, 2003 letter to you, there is no issue of direct infringement of Unitherm's pending patent application by the ALKAR pasteurizer/chiller equipment that Carolina Turkeys is purchasing from ALKAR, and in any case, ALKAR's standard indemnification terms already provide indemnification against direct infringement. Of course, this is why the proposed indemnification terms you sent me in your August 1, 2003 letter would cover patent infringement by ALKAR's equipment or the combination of ALKAR's equipment with other equipment.

Unfortunately, and after due consideration, ALKAR is unable to provide the additional indemnification Carolina Turkeys is seeking, for several reasons. First, the degree of risk is impossible to estimate since we have so little information about Unitherm's pending patent application. Second, ALKAR has limited control over the processes and combinations that Carolina Turkey will practice with the ALKAR equipment. Third, this indemnification would simply be an insurance policy against patent infringement, and both Carolina Turkeys and ALKAR would be better off to seek such an insurance policy from a third party that has experience in offering this type of insurance. Although ALKAR is prepared to work with Carolina Turkeys to address this issue, we hope you can understand that ALKAR cannot assume the risk on its own, especially since Carolina Turkeys would face this risk no matter who supplied the pasteurizer/chiller to Carolina Turkeys.

Finally, as you may already be aware, Bob Hanson, Vice President of Research and Development for ALKAR, visited Carolina Turkeys on July 24, 2003 to hold discussions with Mike Bliss of Carolina Turkeys and Troy Smith of your office regarding this issue. You may not be aware that in subsequent phone conversations beginning on August 1, 2003, Mr. Hanson and Mr. Bliss agreed that ALKAR and Carolina Turkeys would work together, possibly with other third parties, to prevent Unitherm from improperly asserting exclusive ownership over known methods and processes. In those same phone conversations, Mr. Hanson and Mr. Bliss also agreed that ALKAR and Carolina Turkeys would continue forward at full speed on the pasteurizer project, notwithstanding that our discussions and efforts to deal with Unitherm's unfair business practices are ongoing. Please let me know if there has been any misunderstanding as to these issues.

Please be assured that we will keep you posted on our activities as we continue to deal with this issue. We would also welcome any comments or suggestions you may have. Please give me a call if you have any questions.

Respectfully,



Rick L. Abegglen

cc: Mr. Phil Hinderaker
Mr. Bob Hanson
Mr. David Walsh
Mr. Harry Engstrom